

TWO NEW SPECIES OF *CARALLUMA* FROM THE WESTERN PART OF THE CAPE PROVINCE.

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ABSTRACT

Two new species of *Caralluma* from the Western part of the Cape Province are described. Attention is drawn to the similarity in vegetative characters of many species encountered in this area and the need for a more intensive investigation of this species-complex is alluded to.

UITTREKSEL

TWEE NUWE *CARALLUMA* SOORTE VANAF DIE WES-KAAP.

Twee nuwe *Caralluma* soorte vanaf die westelike deel van die Kaap Provinsie word beskryf. Aandag word gevestig op die eendersheid van die vegetatiewe kenmerke van baie spesies wat in die deel aangetref word en die behoefte vir meer intensiewe ondersoek in hierdie spesies kompleks word aangegee.

Caralluma swanepoelii Lavranos nov. sp., affinis *C. dependenti* N.E.Br. sed caulibus brevibus, basi radicanibus, dense confertis, corolla rotata nec dependente differt.

Planta succulenta, aphylla, *caulibus* 2—6 cm longis, 10—12 mm crassis e basi radicanibus, dense confertis, tetragonis, angulis rotundatis, tuberculatis-tessellatis, tuberculis dente acuto, duro, brunneo armatis; *floribus* ex parte apicale caulium productis haud dependentibus; *pedicellis* strictis, 1,5 mm longis, 0,75 mm diam., glabribus, viridibus rubrolineatis; *sepalis* 2 mm longis, deltoideis, acutis; *corolla* 12 mm diam., rotata, disco carnosio, 4,5 mm diam., albo brunneo-violaceo maculato, lobis 3,75 mm longis, 3 mm latis, ovatis deltoideis, basi albis, brunneo-violaceis maculatis, apicem versus omnino brunneo-violaceis, glabribus sed marginibus levissime deflexis, pilis contortis, violaceis ornatis; *corona* supra corollam 1,75 mm elevata, duplici, *lobis exterioribus* apice fuscis brunneo-violaceis, patentibus-adscendentibus, apice bifido segmentibus divergentibus, curvatis; *interioribus* itidem fuscis brunneo-violaceis, linearibus, apice rotundatis-emarginatis.

Type material: South Africa; Cape Province; 3119 AA (Calvinia). On low hills on the farm Kleine Kloof, alt. appr. 400 m; *Swanepoel in Lavranos* 8371 (PRE holotype).

Plants succulent, leafless, the densely congested *stems* 2—6 cm long, 10—12 mm thick, ascending, rooting at their base, 4-angled, the angles rounded, tuberculate-tessellate, each tubercle armed with an acute, hard, brown tooth; *flowers* produced from the apical part of the stems, not dependent; *pedicels*

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FIG. 1
C. ortholoba face view of flower $\times 10$



FIG. 2
C. ortholoba plant $\times 0,5$, showing habit.

straight, 1,75 mm long, 0,75 mm diam., glabrous, green with longitudinal reddish lines; *sepals* 2 mm long, deltoid, acute; *corolla* 12 mm diam., rotate with a rather fleshy disc 4,5 mm diam., which is whitish with violet-brown spots, the lobes 3,75 mm long 3 mm broad, ovate-deltoid, whitish with violet-brown spots at base, thereafter entirely violet-brown, glabrous except for contorted, violet-reddish hairs on their very slightly reflexed margins; *corona* elevated 1,75 mm above the corolla, the *outer lobes* spreading—ascending the segments of their forked, dark violet-brown apex diverging, curved; *inner lobes* as the outer in colour, linear, with a rounded emarginate apex.

C. swanepoelii, named after its discoverer, Mr. J. P. Swanepoel of Somerset West, Cape Province, was found about 20 km NE of Nieuwoudtville, in the Calvinia District, growing under the protection of low Karoo bushes on undulating, gravelly ground, in association with *Euphorbia cf brakdamensis* N.E.Br., *Aloe krapohlana* Marl., *Echidnopsis framesii* Wh. & Sl., many other Stapelieae, species of *Oxalis*, *Lachenalia* etc.

The area around Vanrhynsdorp and Nieuwoudtville has yielded an unusually large variety of species of *Caralluma*, many of which are quite distinct florally but scarcely so in their vegetative characters. The fact that some of these species, such as *C. cincta* Likh., *C. villetii* Likh. or *C. inversa* N.E.Br. are rare is borne out by the fact that the first two have not been found again since the original collection, while *C. inversa*, originally collected in 1903 “in the Clanwilliam District”, was found again, for the first time since its discovery and again in one single specimen, near Vanrhynsdorp by Mr. Swanepoel.

C. swanepoelii is closest allied to *C. dependens* N.E.Br. from which, however, it differs by its flowers which are not at all dependent, its corolla which is rotate with a fleshy disc and by its much shorter, semi-prostrate or ascending stems which form dense mats and differ markedly, in this regard at least, from the long erect stems characteristic of *C. dependens*.

Caralluma ortholoba Lavranos nov. sp., affinis *C. hottentotorum* (N.E.Br.) N.E.Br., sed lobis corollae erectis, late deltoideis, corolla omnino glabra et minute purpurea maculata differt.

Planta succulenta, aphylla, *caulibus* confertis, basi radicanibus, 4—10 cm longis, a 20 mm crassis, 4-vel 5-gonis, viridibus, prominente dentatis, dentibus pungentibus, brunneis; *floribus* 2—5 simul vel deinceps e *pedunculis* pulviniformibus productis; *bracteis* pluribus, minutis; *pedicellis* teretibus, 1,5 mm longis; *corolla* companulata, glabra, flavescente, sparse et minute purpurea maculata, expansa 9 mm diam., tubo ca. 2,3 mm longo, 4 mm lato, lobis erectis, late deltoideis, acutis, 3 mm longis et ca. 3 mm latis; *corona* duplici, fusca purpurea, 3,5 mm diam., *exteriore* cupulari, lobis 5, erectis, brevissimis, bifidis, *interiore*



FIG. 3
Caralluma swanepoelii; portion of flowering stem $\times 2,5$



FIG. 4
C. swanepoelii, face view of flower, ca $\times 10$

lobis linearibus, apice acutiusculis, supra antheras arcte incumbentibus sed ab eas valde brevioribus.

Type material: South Africa, Cape Province, 3118 DD (Vanhynsdorp), some kilometres WSW of the Langeberg on sandy soil in the shade of small shrubs and tufts of desert grass; Lavaros 8227, coll. 12 April 1971 (PRE, holotype).

Plants succulent, leafless, the *stems* densely congested and rooting at their base, 4—10 cm long, about 20 mm thick including the prominent acute, brown-tipped, pungent teeth, 4- or 5-angled; *flowers* 2—5 arising together or successively from cushion-like *peduncles* in the grooves between the angles of the stems; *bracts* several, minute; *pedicels* terete, 1.5 mm long; *sepals* deltoid, acute, green, 2 mm long; *corolla* glabrous, campanulate, yellowish with distant, minute, irregular purple blotches, when expanded 9 mm diam., the tube ca. 2.3 mm long, 4 mm wide, the lobes erect, broadly deltoid, acute, 3 mm long and about as wide; *corona* double, dark purple, 3.5 mm diam., the *outer* cupular with 5 very short, erect, bifid lobes, the *inner* lobes linear, with a rather acute apex, incumbent upon but much shorter than the anthers.

Only a few specimens of this new species were found at the type locality and held to represent *C. hottentotum*. Their true identity was, however, established when they flowered at Johannesburg and Somerset West, in June 1971.

C. ortholoba is virtually indistinguishable, vegetatively from the majority of the species of *Caralluma* found in the Calvinia and Vanhynsdorp Districts and parts of Namaqualand. It is most closely allied to the various forms of *C. hottentotum* but is readily distinguished by the erect and broadly deltoid corolla lobes of its flowers which are spotted with purple whereas in *C. hottentotum* the flowers are generally yellowish, without spots and, most important, with spreading and proportionally narrower corolla lobes. Also, in the new species, the corona is wholly dark purple while in its ally it is always yellowish.

Both species dealt with in this paper emanate from the same general area in the Western Cape Province and their discovery emphasises the need for a closer investigation, by means of organised collecting and subsequent comparative study, of the numerous *Stapelieae* that grow in this arid area.

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